

# **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



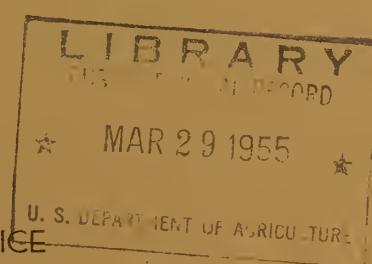


Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts

for

**OREGON**

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND  
OREGON AGRICULTURAL EXPERIMENT STATION



Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

AS OF  
FEBRUARY 1, 1955

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY  
AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge  
River Forecast Center  
U. S. Weather Bureau  
712 Federal Office Building  
Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Meteorologist in Charge.....Columbia River and  
Weather Bureau Office tributaries below Grand  
320 Custom House Coulee Dam, except the  
Portland 9, Oregon Snake River and tribu-  
tarries.

Meteorologist in Charge.....Oregon and California  
Weather Bureau Airport Station Coast drainage, from and  
Box 1072 including Umpqua River  
Medford, Ore. Basin, southward to and  
including Klamath River  
and tributaries; the  
Great Basin in Oregon

State of Oregon

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS AND WATER SUPPLY FORECASTS  
FOR  
OREGON

Issued

February 9, 1955

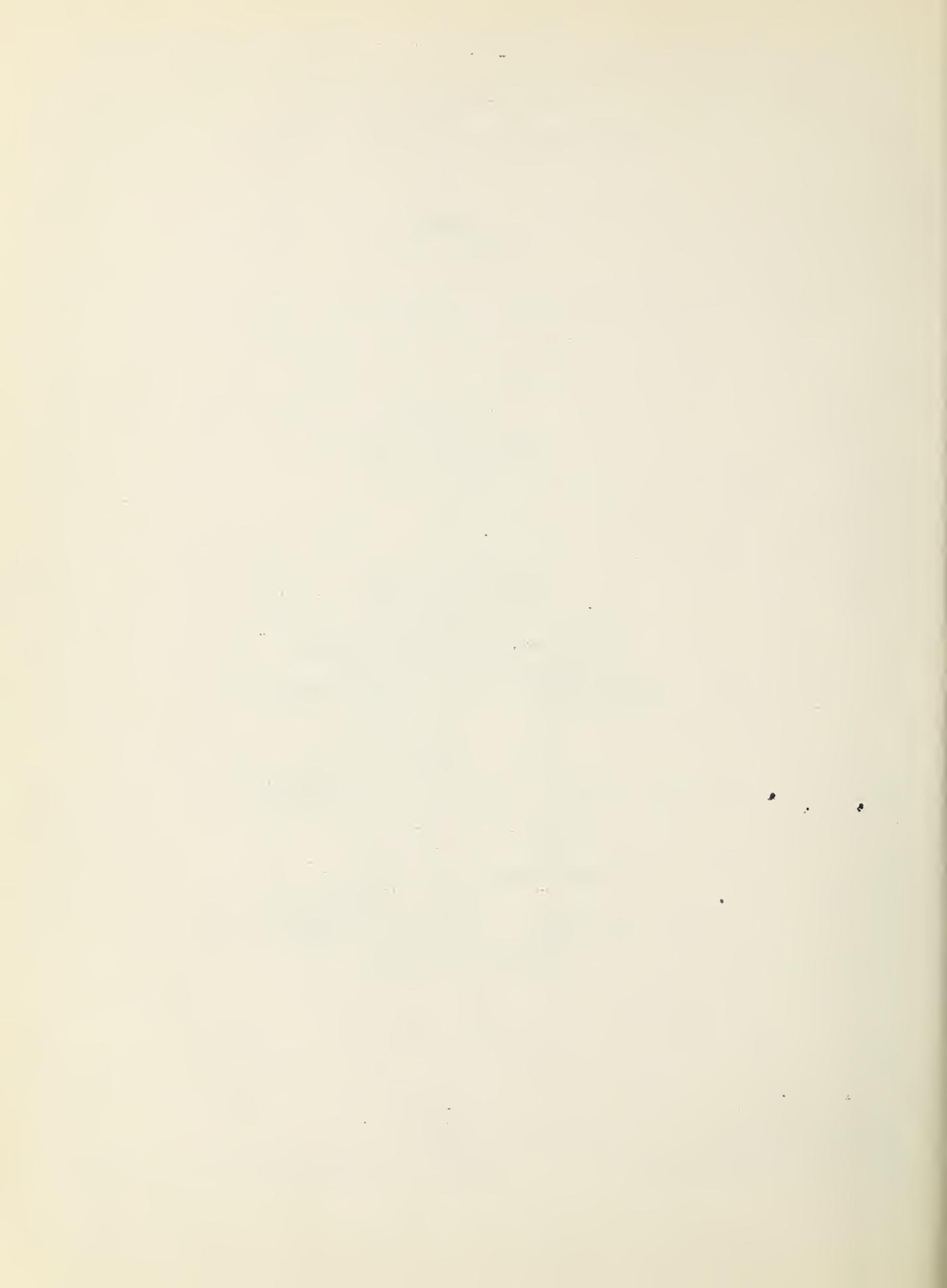
Report Prepared  
by  
W. T. Frost, Hydraulic Engineer  
and  
Manes Barton, Assistant Water Forecaster

Soil Conservation Service  
and  
Oregon Agricultural Experiment Station  
209 S. W. 5th Avenue  
Portland 4, Oregon

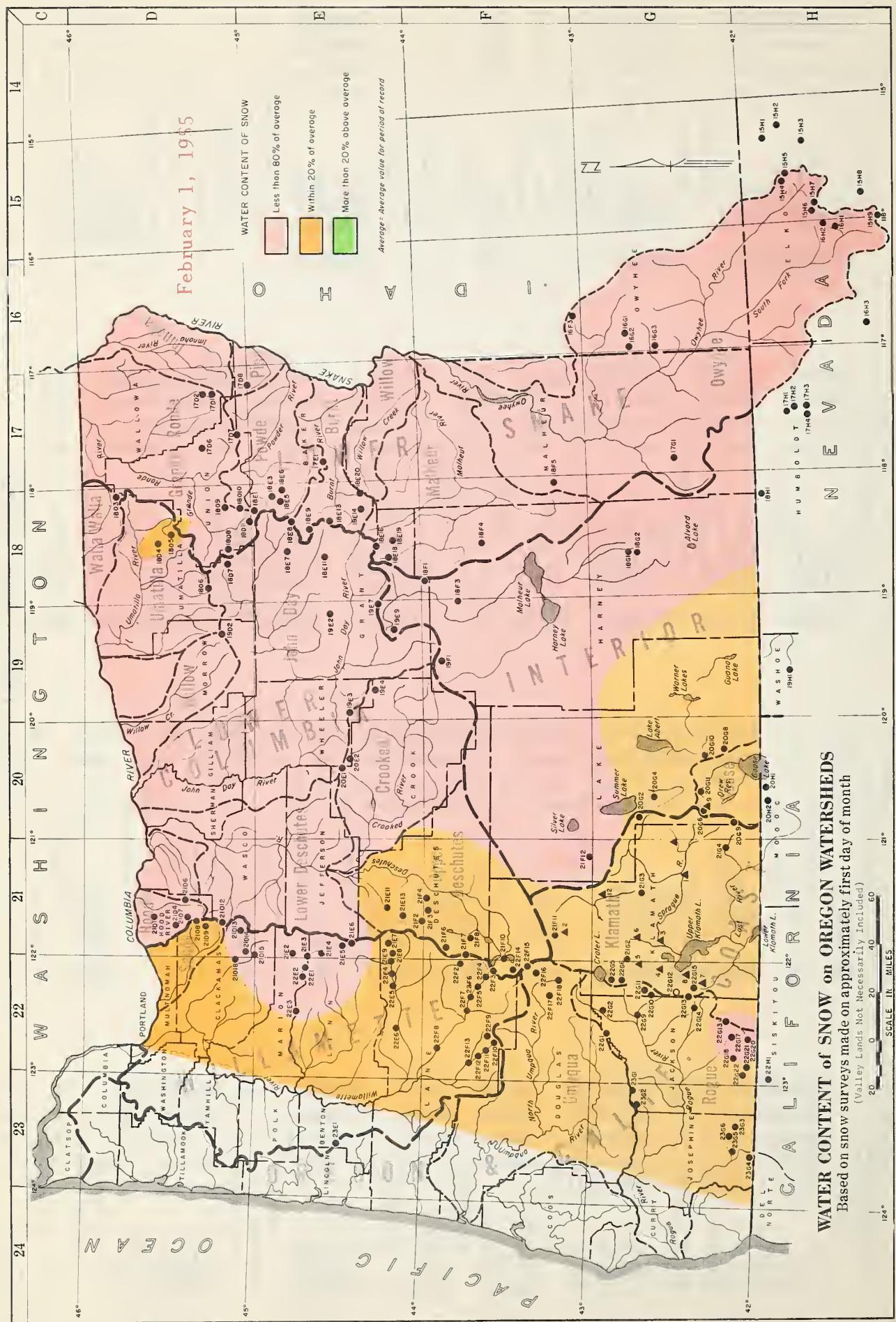
Issued by:

Harold E. Tower  
State Conservationist  
Soil Conservation Service

F. Earl Price  
Director  
Oregon Agricultural Experiment Station



Number	Name	Location	Elev.	Sec. Top. Reg.	Number	Name	Location	Elev.	Sec. Top. Reg.	Number	Name	Location	Elev.	Sec. Top. Reg.	Location	Elev.	
<b>UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)</b>																	
OTHIE RIVER BASIN																	
1655	Barren Valley	26	278	388	1200	1826	Lucky Strike	24	25	328	5050	2821	Detroit (town)	1	105	55	15004
1656	Big Bend	(Nev.) 20	155	6700	1825	Macham	24	25	355	1300	2822	Detroit Dam	7	105	55	1500	
1657	Cliff	(Ia)	18	95	5200	1823	Tollgate	32	LN	388	5070	2162	Fourmile Lake	9	365	55	6000
1658	Fry Creek	(Nev.) 31	135	518	6700	1922	Arbuckle Mountain	33	LN	298	5100	2161	Gerber Prairie Reservoir	12	355	35	1850
1659	Gold Canyon	(Nev.) 31	135	518	6600							2205	Park Headquarters	6	315	35	1900
1660	Highway Camp	(Nev.) 18	125	518	1300							2205	Mill City	29	95	35	1960
1661	Jack Creek	(Nev.) 18	125	518	1300							2185	Santiam Junction	11	315	65	6150
1662	Jack Creek, Upper	(Nev.) 9	125	518	7250							2183	Whitewater Bridge	26	165	75	5320
1663	Lorby Ranch	(Ia)	105	518	14000												
1664	Flat	(Nev.) 36	135	518	6800	1824	Anthony Lake	18	75	378	725	2168	Dead Horse Grade	21	165	75	16500
1665	Gold Creek	(Ia)	6	34	6400	1825	Beech Creek	23	LN	298	5100	2282	Lost Creek Ranch	21	165	65	1716
1666	Silver City	(Ia)	6	34	6300	1826	Blue Mountain Spring	1	125	352	5080	2167	McKenzie Bridge	13	165	55	1720
1667	South Mountain No. 2	(Ia)	35	518	5100	1827	Blue Mountain Summit	6	125	368	5098	2168	Vida	28	165	25	6000
1668	Taylor Creek	(Nev.) 35	135	518	6200	1828	Dixie Springs	14	125	375	5670	2169	Wilde Branch Slide	15	165	75	2000
(The following courses are adjacent to but not on the Owyhee Drainage and partially reflect snow conditions on this watershed.)																	
1669	Trout Creek	(Nev.) 35	135	518	5200	1829	East Summit	28	165	368	5310	2283	Cascade Summit	7	235	65	1850
1670	Trout Creek	(Nev.) 22	165	5050	7800	1830	Fews Creek	25	125	328	5293	2284	McPhee Springs	36	215	25	2150
1671	Bear Creek	(Nev.) 25	165	5050	6700	1831	Onion Meadows	22	125	328	5150	2285	Meridian Dam	13	195	15	5200
1672	Buckskin, Lower	(Nev.) 11	155	518	3700	1832	Oil Lake	11	195	328	5070	2287	Oakridge	16	195	15	1210
1673	Buckskin, Upper	(Nev.) 11	155	518	3700	1833	Schoolhouse	28	125	325	5075	2287	Railroad Overpass	27	225	15	5755
1674	Fox Creek	(Nev.) 23	165	518	6800	1834	Snow Mountain	1	125	265	5200	2288	Salt Creek Falls	32	225	65	5900
1675	Grizzly Peak	(Nev.) 22	165	518	5100	1835	Star Ridge	20	125	315	5150	2289	Wallowa Lake	25	125	65	5500
1676	Martin Creek	(Nev.) 18	155	518	5100	1836	Tipton	34	125	3545	5100	2291	Wallowa Pass	21	125	55	5000
CROOKED RIVER BASIN																	
1821	Black Pine Spring	23	165	328	5100	1837	Derr	16	125	328	5150	2292	Champion	12	235	15	1500
1822	Calidell Ranch	23	165	328	5100	1838	McRae Creek	25	125	328	5150	2293	Collier Creek	31	235	15	1516
1823	Cascade Summit	23	165	328	5100	1839	Snow Mountain	1	195	265	6300	2294	Loring Creek R. S.	22	225	15	1210
1824	Charlton Lake	23	165	328	5100	1840	Tannerack	8	125	255	4800	2295	Lure Park	15	210	15	2100
UPPER DESCHUTES RIVER BASIN																	
2161	Black Pine Spring	16	125	368	5050	1841	Diamond Lake	29	275	65	5350	2161	SILVER LAKE BASIN	32	375	15	5750
2162	Calidell Ranch	16	125	368	5050	1842	Charlton Lake	21	215	325	5150	2162	SILVER LAKE	31	375	15	5750
2163	Charlton Lake	16	125	368	5050	1843	Charlton Lake	23	215	325	5150	2163	SILVER LAKE	31	375	15	5750
2164	Charlton Lake	16	125	368	5050	1844	Charlton Lake	11	215	65	5170	2164	SILVER LAKE	31	375	15	5750
2165	Charlton Lake	16	125	368	5050	1845	Charlton Lake	25	205	115	4400	2165	SILVER LAKE	31	375	15	5750
2166	Charlton Lake	16	125	368	5050	1846	Charlton Lake	21	215	65	5170	2166	SILVER LAKE	31	375	15	5750
2167	Charlton Lake	16	125	368	5050	1847	Charlton Lake	23	215	65	5170	2167	SILVER LAKE	31	375	15	5750
2168	Charlton Lake	16	125	368	5050	1848	Charlton Lake	25	205	115	4400	2168	SILVER LAKE	31	375	15	5750
LOWER DESCHUTES RIVER BASIN																	
2169	Clear Lake	29	LN	298	5100	1849	Champion	12	235	15	1500	2169	ROGUE RIVER BASIN	17	155	15	1500
2170	Hogg Pass	21	LN	298	5100	1850	Diamond Lake	30	325	325	5150	2170	ROGUE RIVER BASIN	25	26	295	13500
2171	Hogg Pass	21	LN	298	5100	1851	Goat Lake	21	165	65	5100	2171	ROGUE RIVER BASIN	30	325	325	5150
2172	Hogg Pass	21	LN	298	5100	1852	Goat Lake	28	165	65	5100	2172	ROGUE RIVER BASIN	30	325	325	5150
2173	Hogg Pass	21	LN	298	5100	1853	Goat Lake	21	165	65	5100	2173	ROGUE RIVER BASIN	30	325	325	5150
2174	Hogg Pass	21	LN	298	5100	1854	Goat Lake	28	165	65	5100	2174	ROGUE RIVER BASIN	30	325	325	5150
2175	Hogg Pass	21	LN	298	5100	1855	Goat Lake	21	165	65	5100	2175	ROGUE RIVER BASIN	30	325	325	5150
HOOD RIVER BASIN																	
2176	Brooks Headings	26	LN	298	5100	1856	Althouse	17	165	165	5100	2176	ROGUE RIVER BASIN	19	165	165	5100
2177	Greenpoint Reservoir	26	LN	298	5100	1857	Annie Spring	20	165	165	5100	2177	ROGUE RIVER BASIN	23	165	165	5100
2178	Red Hill	21	LN	298	5100	1858	Big Red Mountain	21	165	165	5100	2178	ROGUE RIVER BASIN	23	165	165	5100
2179	Tilly Jane-Mt. Hood	15	LN	92	6000	1859	Little Red Mountain	15	165	165	5100	2179	ROGUE RIVER BASIN	23	165	165	5100
2180	Wallowa Pass	21	LN	92	6000	1860	Oregon Caves	22	165	165	5100	2180	ROGUE RIVER BASIN	23	165	165	5100
2181	Wallowa Pass	21	LN	92	6000	1861	Pine Mountain	22	165	165	5100	2181	ROGUE RIVER BASIN	23	165	165	5100
2182	Wallowa Pass	21	LN	92	6000	1862	Pine Mountain	22	165	165	5100	2182	ROGUE RIVER BASIN	23	165	165	5100
2183	Wallowa Pass	21	LN	92	6000	1863	Pine Mountain	22	165	165	5100	2183	ROGUE RIVER BASIN	23	165	165	5100
2184	Wallowa Pass	21	LN	92	6000	1864	Pine Mountain	22	165	165	5100	2184	ROGUE RIVER BASIN	23	165	165	5100
2185	Wallowa Pass	21	LN	92	6000	1865	Pine Mountain	22	165	165	5100	2185	ROGUE RIVER BASIN	23	165	165	5100
2186	Wallowa Pass	21	LN	92	6000	1866	Pine Mountain	22	165	165	5100	2186	ROGUE RIVER BASIN	23	165	165	5100
2187	Wallowa Pass	21	LN	92	6000	1867	Pine Mountain	22	165	165	5100	2187	ROGUE RIVER BASIN	23	165	165	5100
2188	Wallowa Pass	21	LN	92	6000	1868	Pine Mountain	22	165	165	5100	2188	ROGUE RIVER BASIN	23	165	165	5100
2189	Wallowa Pass	21	LN	92	6000	1869	Pine Mountain	22	165	165	5100	2189	ROGUE RIVER BASIN	23	165	165	5100
2190	Wallowa Pass	21	LN	92	6000	1870	Pine Mountain	22	165	165	5100	2190	ROGUE RIVER BASIN	23	165	165	5100
2191	Wallowa Pass	21	LN	92	6000	1871	Pine Mountain	22	165	165	5100	2191	ROGUE RIVER BASIN	23	165	165	5100
2192	Wallowa Pass	21	LN	92	6000	1872	Pine Mountain	22	165	165	5100	2192	ROGUE RIVER BASIN	23	165	165	5100
2193	Wallowa Pass	21	LN	92	6000	1873	Pine Mountain	22	165	165	5100	2193	ROGUE RIVER BASIN	23	165	165	5100
2194	Wallowa Pass	21	LN	92	6000	1874	Pine Mountain	22	165	165	5100	2194	ROGUE RIVER BASIN	23	165	165	5100
2195	Wallowa Pass	21	LN	92	6000	1875	Pine Mountain	22	165	165	5100	2195	ROGUE RIVER BASIN	23	165	165	5100
2196	Wallowa Pass	21	LN	92	6000	1876	Pine Mountain	22	165	165	5100	2196	ROGUE RIVER BASIN	23	165	165	5100
2197	Wallowa Pass	21	LN	92	6000	1877	Pine Mountain	22	165	165	5100	2197	ROGUE RIVER BASIN	23	165	165	5100
2198	Wallowa Pass	21	LN	92	6000	1878	Pine Mountain	22	165	165	5100	2198	ROGUE RIVER BASIN	23	165	165	5100
2199	Wallowa Pass	21	LN	92	6000	1879	Pine Mountain	22	165	165	5100	2199	ROGUE RIVER BASIN	23	165	165	5100
2200	Wallowa Pass	21	LN	92	6000	1880	Pine Mountain	22	165	165	5100	2200	ROGUE RIVER BASIN	23	165	165	5100
2201	Wallowa Pass	21	LN	92	6000	1881	Pine Mountain	22	165	165	5100	2201	ROGUE RIVER BASIN	23	165	165	5100
2202	Wallowa Pass	21	LN	92	6000	1882	Pine Mountain	22	165	165	5100	2202	ROGUE RIVER BASIN	23	165	165	5100
2203	Wallowa Pass	21	LN	92	6000	1883	Pine Mountain	22	165	165	5100	2203	ROGUE RIVER BASIN	23	165	165	5100
2204	Wallowa Pass	21	LN	92	6000	1884	Pine Mountain	22	165	165	5100	2204	ROGUE RIVER BASIN	23	165	165	5100
2205	Wallowa Pass	21	LN	92	6000	1885	Pine Mountain	22	165	165	5100	2205	ROGUE RIVER BASIN	23	165	165	510



## WATER CONTENT of SNOW on OREGON WATERSHEDS

Based on snow surveys made on approximately first day of month

Valley Lands Not Necessarily Included)

Ergonomics in Design 199

10805-L  
EMBER 1954

PRELIMINARY WATER SUPPLY OUTLOOK  
FOR OREGON

February 1, 1955

Water supplies will be short in eastern and central Oregon and below average elsewhere in the state this spring and summer.

SNOW-COVER: Usually 70 percent of the winter's snow-cover occurs by February 1. This year only 57 percent has accumulated. Mountain snow fall during the next two months will have to be about 50 percent greater than usual in order to bring state-wide snow-cover up to normal.

SOIL MOISTURE: Mountain soils are dry. Much early snow-melt will be absorbed by these soils before streamflow begins. Little--if any--streamflow may be expected from areas with light snow-cover.

RESERVOIRED WATER: Water shortages in many areas will be alleviated by stored water supplies. Only six reservoirs have less than one-half of their average storage. These are the Owyhee, Warm Springs, Unity, McKay, Fern Ridge and Emigrant Gap reservoirs.

PRECIPITATION: All reporting precipitation stations in Oregon were below normal during January.<sup>1</sup> Fall precipitation was only one-half normal. September through January precipitation was 56 percent of the 10 year average (1943-52).

STREAMFLOW: Short water supplies are foreseen for farmers, ranchers, municipalities, power companies and other water users in the Crooked, Silvies, Owyhee, Malheur, Burnt, Powder and Imnaha river basins. Stored water will help in some of these areas. Elsewhere, streamflow will be more nearly adequate--but below average.

October 1954 through January 1955 streamflow has been about one-half normal.<sup>2</sup> Exceptions were Upper Klamath Lake inflow and the Deschutes river at Moody where normal streamflow has occurred.

<sup>1</sup>From preliminary data furnished by U. S. Weather Bureau, Portland, Oregon.

<sup>2</sup>From preliminary data furnished by U. S. Geological Survey, Portland, Oregon.



The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature during the forecast period will be near average. Appreciable deviations from normal of temperature and/or precipitation during the forecast period will correspondingly modify these forecasts.

Basin, Stream and Station	Seasonal Streamflow in Thousands of Acre Feet					10 - Yr. Average 1943-52
	Forecast Runoff 1955	% 10-Yr. Ave.	Fore- cast Period	Measured Runoff* 1953	Runoff* 1952	
UPPER COLUMBIA BASIN LOWER SNAKE IN OREGON						
<u>Owyhee River Basin</u>						
<u>Owyhee Reservoir</u> net inflow <sup>1</sup>	270.0	46	Mar-July	332.0	1556.0	584.2
<u>Malheur River Basin</u>						
Malheur River, nr. Drewsey	44.6	53	Apr-Sept.	106.4	192.2	83.7
Malheur River, N.Fk., at Beulah <sup>2</sup>	37.8	58	Apr-Sept.	80.1	122.0	65.2
<u>Burnt River Basin</u>						
Burnt River, nr. Hereford <sup>3</sup>	23.3	50	Apr-Sept.	c	65.2	46.5
<u>Powder River Basin</u>						
Powder River, at Salisbury	34.0	52	Apr-Sept.	c	88.7	66.0
<u>Grande Ronde River Basin</u>						
Imnaha River at Imnaha	156.0	51	Apr-Sept.	359.9	424.3	308.0
Wallowa River, E.Fk., nr. Joseph <sup>4</sup>	7.2	62	Apr-Sept.	14.4	12.6	11.6
Hurricane Creek, nr. Joseph	31.5	65	Apr-Sept.	c	55.3	48.2
Lostine River, nr. Lostine	89.0	67	Apr-Sept.	c	145.8	132.3
Bear Creek, nr. Wallowa	45.0	60	Apr-Sept.	c	79.7	75.0
Catherine Creek, nr. Union	58.0	79	Apr-Sept.	96.1	90.6	73.3
Grande Ronde River at LaGrande	141.0	73	Apr-Sept.	234.9	183.2	194.4

\*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

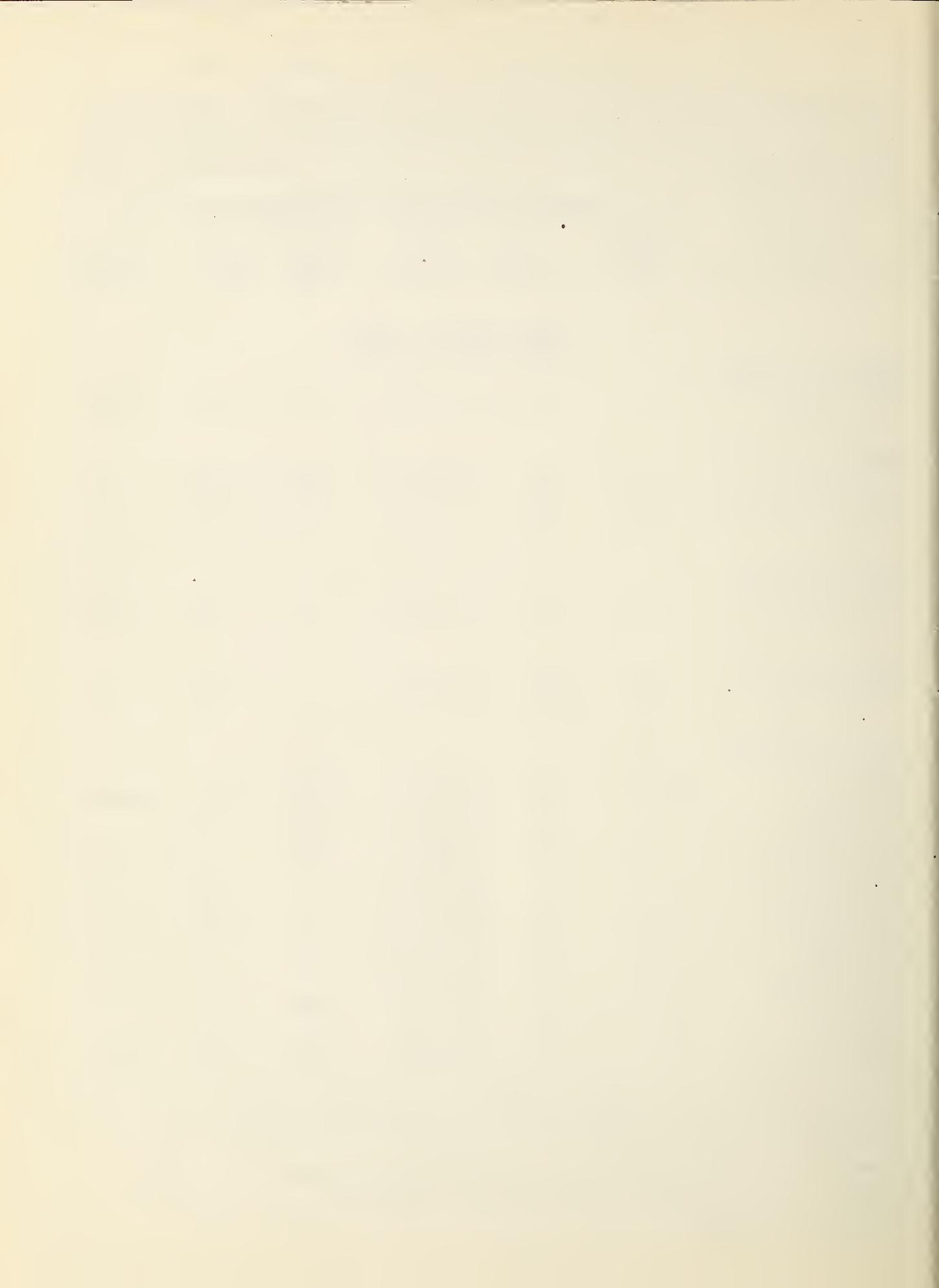
<sup>1</sup>From U.S.B.R. records of inflow.

<sup>2</sup>Observed flow + change in storage in Agency Valley Reservoir.

<sup>3</sup>Observed flow plus change in storage in Unity Reservoir.

<sup>4</sup>Includes power plant tailrace.

<sup>c</sup>Records not available.



## Streamflow Forecasts - February 1, 1955 (Cont'd.)

Basin, Stream and Station	Forecast Runoff 1955	Seasonal Streamflow in Thousands of Acre Feet				10 - Yr. Average 1943-52
		% 10-Yr. Ave.	Fore- cast Period	Measured 1953	Runoff* 1952	
LOWER COLUMBIA BASIN						
<u>Umatilla River Basin</u>						
Umatilla River, nr. Gibbon	91.5	94	Apr-Sept.	c	103.0	97.8
Umatilla River, at Pendleton	179.9	95	Apr-Sept.	c	184.8	189.5
McKay Creek nr. Pilot Rock	25.8	86	Apr-Sept.	c	23.3	30.1
<u>Walla Walla River Basin</u>						
Walla Walla R., So. Fk., nr. Milton	58.0	74	Apr-Sept.	c	85.0	78.0
<u>John Day River Basin</u>						
Strawberry Cr. nr. Prairie City	6.1	70	Apr-Sept.	11.1	10.5	8.7
John Day River at Prairie City <sup>5</sup>	32.5	60	Apr-Sept.	61.5	67.2	54.0
John Day River, Mid.Fk. at Ritter	77.0	57	Apr-Sept.	165.3	172.6	134.6
John Day River, N.Fk., nr. Dale	165.0	61	Apr-Sept.	333.8	309.8	271.0
<u>Crooked River Basin</u>						
Crooked R., nr. Post	49.0	37	Apr-Sept.	173.6	205.8	133.9
Ochoco Res., net inflow <sup>6</sup>	10.5	30	Apr-Sept.	c	44.9	34.5
<u>Deschutes River Basin</u>						
Crescent Creek at Crescent Lake <sup>7</sup>	15.5	57	Apr-Sept.	40.9	47.2	27.2
Little Deschutes R., nr. Lapine <sup>7</sup>	66.8	62	Apr-Sept.	138.3	171.9	107.7
Odell Cr., nr. Crescent	27.4	82	Apr-Sept.	c	44.1	33.3
Deschutes River, below Snow Creek	58.0	81	Apr-Sept.	75.0	89.2	71.8
Crane Prairie Res. inflow <sup>8</sup>	116.6	85	Apr-Sept.	c	c	136.7 <sup>d</sup>

\*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>5</sup>Observed flow / Prairie Power Canal.

<sup>6</sup>Observed flow of Ochoco Cr. / Canal / changes in storage of Ochoco Res.

<sup>7</sup>Observed flow / changes in storage of Crescent Lake Reservoir.

<sup>8</sup>From State Engineer's file #3220a, tabulating total inflow to Crane Prairie Reservoir and outflow, showing the loss in the Reservoir.

<sup>c</sup>Records not available.

<sup>d</sup>1952 excepted.



## Streamflow Forecasts - February 1, 1955 (Cont'd.)

Basin, Stream and Station	Forecast Runoff 1955	Seasonal Streamflow in Thousands of Acre Feet					10 - Yr. Average 1943-52		
		% 10-Yr. Ave.	Fore- cast Period	Measured 1953	Runoff* 1952				
<u>Deschutes River Basin</u>									
(Continued)									
Deschutes River at Benham Falls <sup>9</sup>	489.3	87	Apr-Sept.	661.2	765.7	560.8			
Tumalo Creek, nr. Bend <sup>10</sup>	43.2	78	Apr-Sept.	c	81.0	55.4			
Squaw Creek, nr. Sisters	46.5	87	Apr-Sept.	57.8	58.8	53.7			
White River, below Tygh Valley	112.5	63	Apr-Sept.	159.8	171.2	178.2			
<u>Hood River Basin</u>									
Hood River, W. Fk., nr. Dee	120.0	72	Apr-Sept.	138.9	155.8	166.6			
Hood River, nr. Hood River <sup>11</sup>	249.2	71	Apr-Sept.	314.5	324.7	351.1			
<u>Willamette River Basin</u>									
Row River, nr. Dorena	102.7	95	Apr-Sept.	146.3	107.5	108.2			
McKenzie R., at McKenzie Bridge	531.3	86	Apr-Sept.	658.1	674.2	616.3			
McKenzie River, nr. Vida	1119.0	85	Apr-Sept.	1465.2	1434.3	1319.1			
South Santiam, at Waterloo	522.0	84	Apr-Sept.	729.9	640.3	620.8			
North Santiam at Mehama <sup>12</sup>	776.9	83	Apr-Sept.	793.0	1016.4	939.0			
Willamette River at Salem <sup>12</sup>	4632.0	91	Apr-Sept.	6085.7	5607.6	5091.0			
Clackamas River, at Big Bottom	131.4	72	Apr-Sept.	168.0	192.0	181.6			
Oak Grove Fk. abv. Power Intake	155.2	76	Apr-Sept.	196.0	208.7	203.7			
Clackamas River abv. Three Lynx	559.3	84	Apr-Sept.	627.6	711.8	665.3			
Clackamas River nr. Cazadero	742.5	86	Apr-Sept.	827.8	883.1	860.0			

\*Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>9</sup>Observed flow / changes in storage in Crane Prairie, Wickiup and Crescent Lake Reservoirs.

<sup>10</sup>Observed flow / Columbia Southern Canal.

<sup>11</sup>Observed flow plus P.P. & L. Co. power canal.

<sup>12</sup>Observed flow / changes in storage in any of the following reservoirs which are above the station: Lookout Point, Detroit, Fern Ridge, Cottage Grove and Dorena.

<sup>c</sup> Records not available.



## Streamflow Forecasts - February 1, 1955 (Cont'd.)

Basin, Stream and Station	Forecast Runoff 1955	Seasonal Streamflow in Thousands of Acre Feet				10 - Yr. Average 1943-52		
		% 10-Yr. Ave.	Fore- cast Period	Measured 1953	Runoff* 1952			
OREGON AND CALIFORNIA COAST BASINS								
<u>Umpqua River Basin</u>								
No. Umpqua River, below Lake Creek	142.9	80	Apr-Sept.	212.4	217.6	178.5		
Clearwater River, above Trap Creek	54.5	79	Apr-Sept.	c	86.7	69.0		
<u>Rogue River Basin</u>								
Hyatt Res <sup>13</sup> , net Inflow <sup>13</sup>	3.7	64	Apr-Sept.	c	9.0	5.8		
Fourmile Lake, net Inflow <sup>14</sup>	5.5	74	Apr-Sept.	c	10.0	7.4		
Little Butte Cr. N. Fk. <sup>15</sup> below Fish Lake <sup>15</sup>	11.2	68	Apr-Sept.	21.0	21.8	16.4		
Rogue R. So. Fk., nr. Prospect <sup>16</sup>	65.0	77	Apr-Sept.	c	120.3	84.0		
Rogue R. Mid. Fk., nr. Prospect <sup>17</sup>	61.0	77	Apr-Sept.	c	96.1	79.5		
Rogue River, above Prospect	277.6	81	Apr-Sept.	416.4	477.1	344.5		
Rogue River, below South Fork	596.0	81	Apr-Sept.	c	1007.9	733.7		
Rogue R., at Raygold, nr. Central Point	782.0	80	Apr-Sept.	1276.2	1350.1	972.4		
Rogue River, at Grants Pass	742.0	79	Apr-Sept.	c	1311.7	939.2		
Applegate River, nr. Copper	133.0	110	Apr-Sept.	c	226.0	121.2		
Illinois River, at Kerby	195.4	107	Apr-Sept.	c	241.8	182.5		

\*Discharge data from preliminary records of U. S . Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>13</sup>Observed flow of Keene Creek at Hyatt Prairie + storage changes + 1600 a.f. for estimated evaporation during April-September period.

<sup>14</sup>Observed outflow into Cascade Canal + storage changes + 1600 a.f. for estimated evaporation during April-September period.

<sup>15</sup>Observed flow plus changes in storage in Fish Lake Reservoir + 90% of Cascade Canal inflow.

<sup>16</sup>Observed flow + South Fork Power Canal.

<sup>17</sup>Observed flow + Middle Fork Power Canal.

<sup>c</sup>Records not available.



## Streamflow Forecasts - February 1, 1955 (Cont'd.)

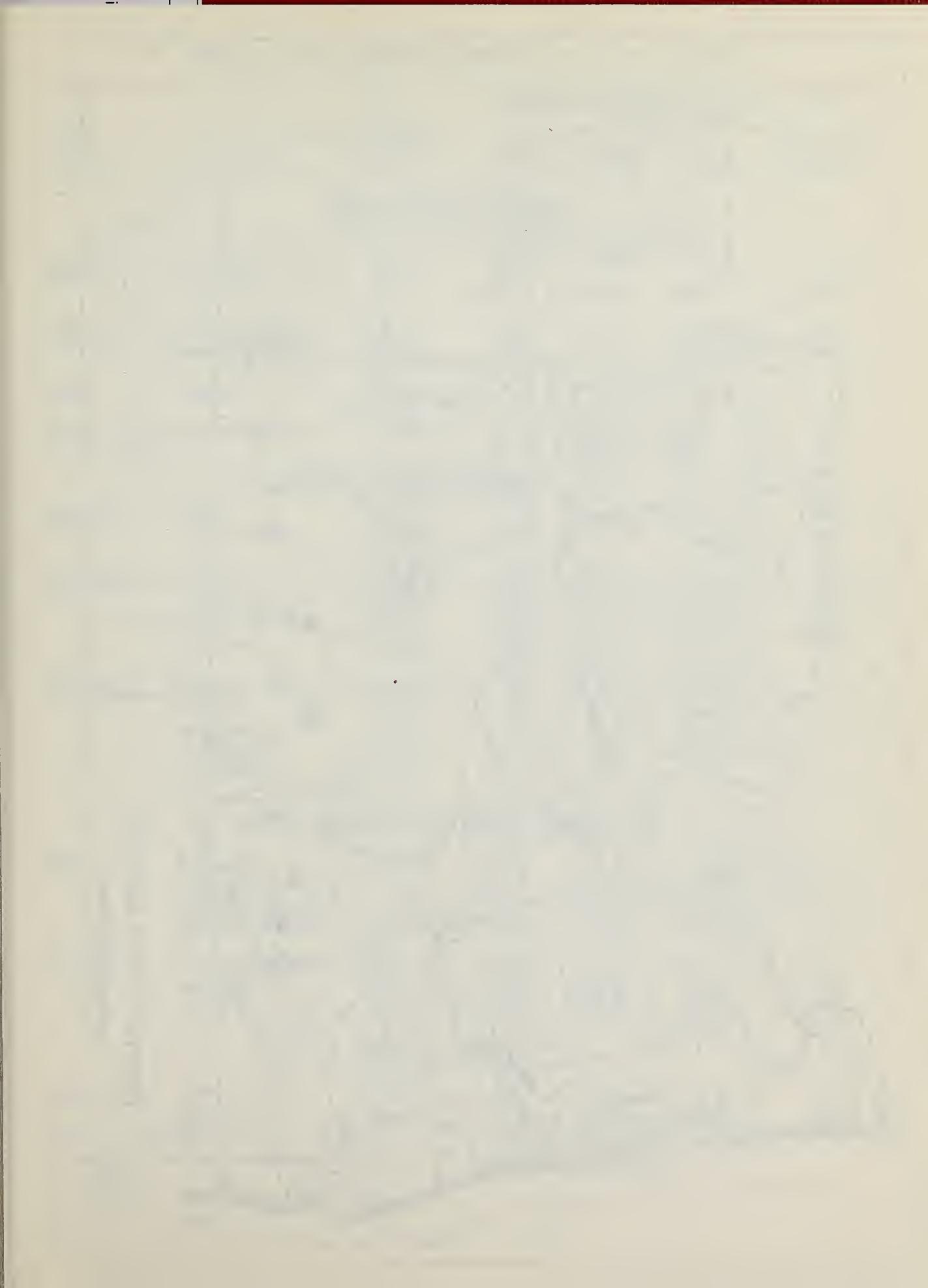
Basin, Stream and Station	Forecast Runoff 1955	Seasonal Streamflow in Thousands of Acre Feet				10 - Yr. Average 1943-52
		% 10-Yr. Ave.	Fore- cast Period	Measured 1953	Runoff* 1952	
<u>Klamath River Basin</u>						
Sprague River, nr. Chiloquin	205.0	78	Apr-Sept.	394.5	561.6	264.4
Williamson River, below Sprague R.	350.0	82	Apr-Sept.	650.2	831.3	425.9
Upper Klamath Lake, net Inflow <sup>18</sup>	470.0	84	Apr-Sept.	893.8	1151.2	556.5
Clear Lake Res., net Inflow	Not Forecast		Apr-Sept.	65.7	157.0	52.1
Gerber Res., net Inflow	Not Forecast		Apr-Sept.	31.3	79.2	24.7
GREAT BASIN INTERIOR DRAINAGE						
<u>Goose Lake Basin</u>						
Drew Reservoir, net Inflow	37.0	87	Mar-July	53.7	101.8	42.4
<u>Warner Lake Basin</u>						
Twentymile Cr., nr. Adel	17.4	80	Apr-June	20.0	77.1	21.7
Deep Cr., above Adel	60.9	85	Apr-June	82.0	129.2	71.7
Honey Cr., nr. Plush	13.6	83	Apr-June	17.0	29.9	16.4
<u>Malheur and Harney Lakes Basin</u>						
Silvies River, nr. Burns	33.0	30	Apr-Sept.	138.1	235.8	110.7

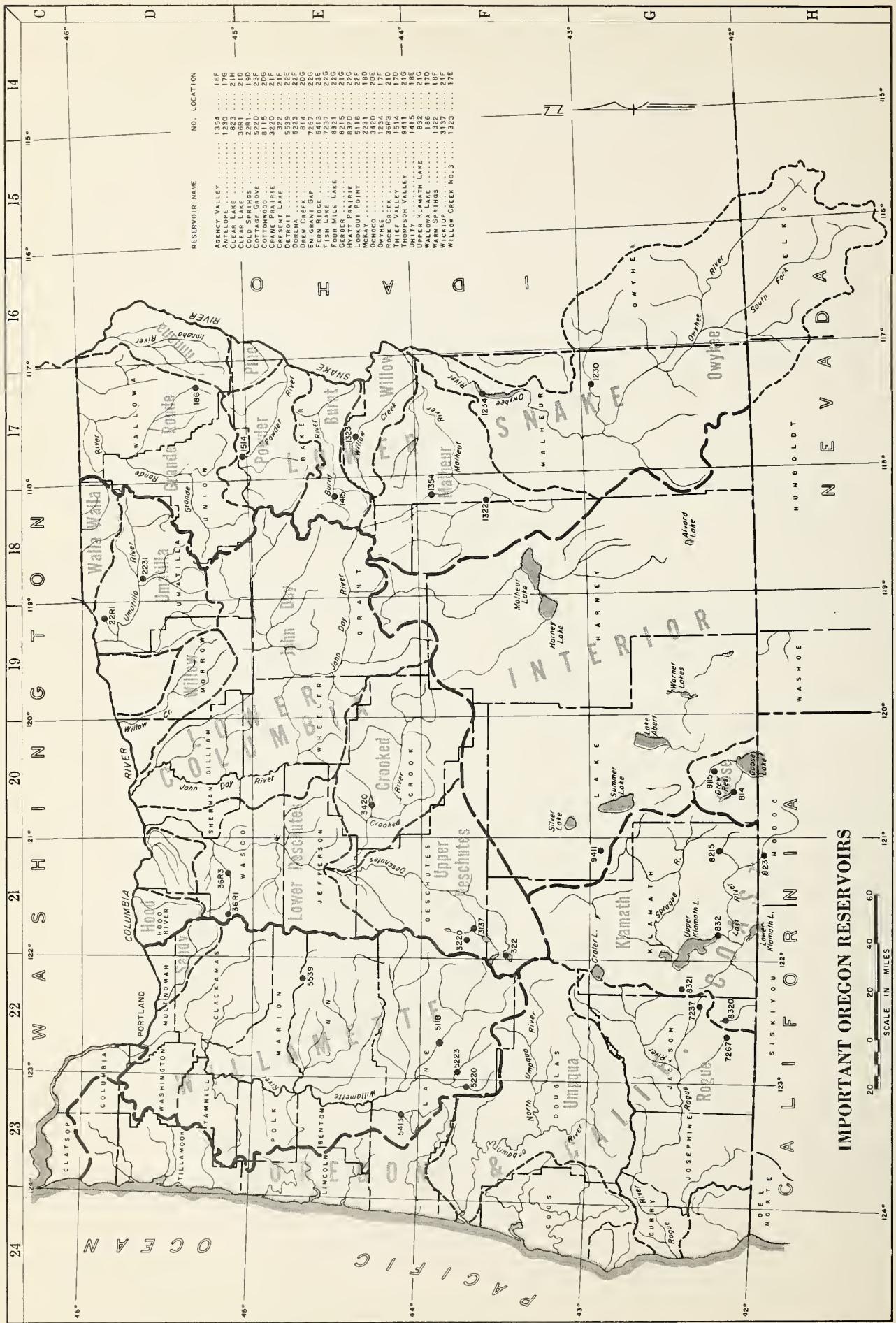
\* Discharge data from preliminary records of U. S. Geological Survey and Oregon State Engineer. 1954 records not available at this time.

<sup>18</sup>From COPCO records of inflow.

c Records not available.







7

STATUS OF OREGON RESERVOIR STORAGE - FEBRUARY 1, 1955

BASIN and STREAM	RESERVOIR	USABLE CAPACITY (M.A.F.)	THOUSAND ACRE FEET IN STORAGE ABOUT FEBRUARY FIRST				10-Yr. Avg. 1943-52			
			1955	1954	1953					
<u>UPPER COLUMBIA DRAINAGE</u>										
<u>Lower Snake in Oregon</u>										
<u>Owyhee</u>	Antelope	36.5	N.R.	N.R.	N.R.		3.4 <sup>d</sup>			
	Owyhee	715.0	169.9	419.7	512.8		439.3			
<u>Malheur</u>	Warm Springs	191.0	23.1	110.9	128.3		56.1			
	Agency Valley	60.0	20.4	22.3	24.4		29.9			
<u>Burnt</u>	Unity	25.2	3.5	3.6	5.7		7.4			
<u>Grande Ronde</u>	Wallowa Lake	40.9	17.8	33.1	27.3		18.1			
<u>LOWER COLUMBIA DRAINAGE</u>										
<u>Umatilla</u>	McKay	74.0	9.0	31.2	22.7		37.5			
	Cold Springs	50.0	18.0	29.4	20.0		30.1			
<u>Deschutes</u>	Ochoco	46.0	21.7	33.8	27.0		23.4			
	Crescent Lake	54.9	24.3	45.6	52.0		44.4			
	Crane Prairie	55.3	45.1	47.7	43.9		37.9			
	Wickiup	187.3	198.3	191.0	157.5		95.5			
<u>Willamette</u>	Cottage Grove	30.1 <sup>a</sup>	0.2	4.9	0.1		0.7			
	Dorena	70.5 <sup>a</sup>	0.6	16.3	0.8		- -			
	Fern Ridge	94.2 <sup>a</sup>	1.0	78.0	35.5		16.7			
	Detroit	340.0 <sup>a</sup>	2.0	61.8	114.8		- -			
	Lookout Pt.	350.0 <sup>a</sup>	12.1	- -	- -		- -			
<u>OREGON AND CALIFORNIA COAST DRAINAGE</u>										
<u>Rogue</u>	Fish Lake	7.8	5.4	6.6	6.5		4.5			
	Fourmile Lake <sup>b</sup>	16.1	9.3	15.6	12.2		6.5			
	Emigrant Gap	8.3	1.4	8.3	8.6		4.9			
	Hyatt Prairie <sup>b</sup>	16.1	9.7	12.2	10.4		4.3			
<u>Klamath</u>	Upper Klamath L.	584.0 <sup>c</sup>	316.6	428.2	469.8		318.4			
	Gerber	94.0	27.2	45.4	58.4		27.8			
	Clear Lake	440.2	220.5	248.7	251.6		178.9			
<u>INTERIOR DRAINAGE</u>										
<u>Goose Lake</u>	Cottonwood	4.1	N.R.	0.4	0.4		0.8 <sup>e</sup>			
	Drew	62.5	24.3	37.5	46.3		34.7 <sup>e</sup>			

N.R. - No Report

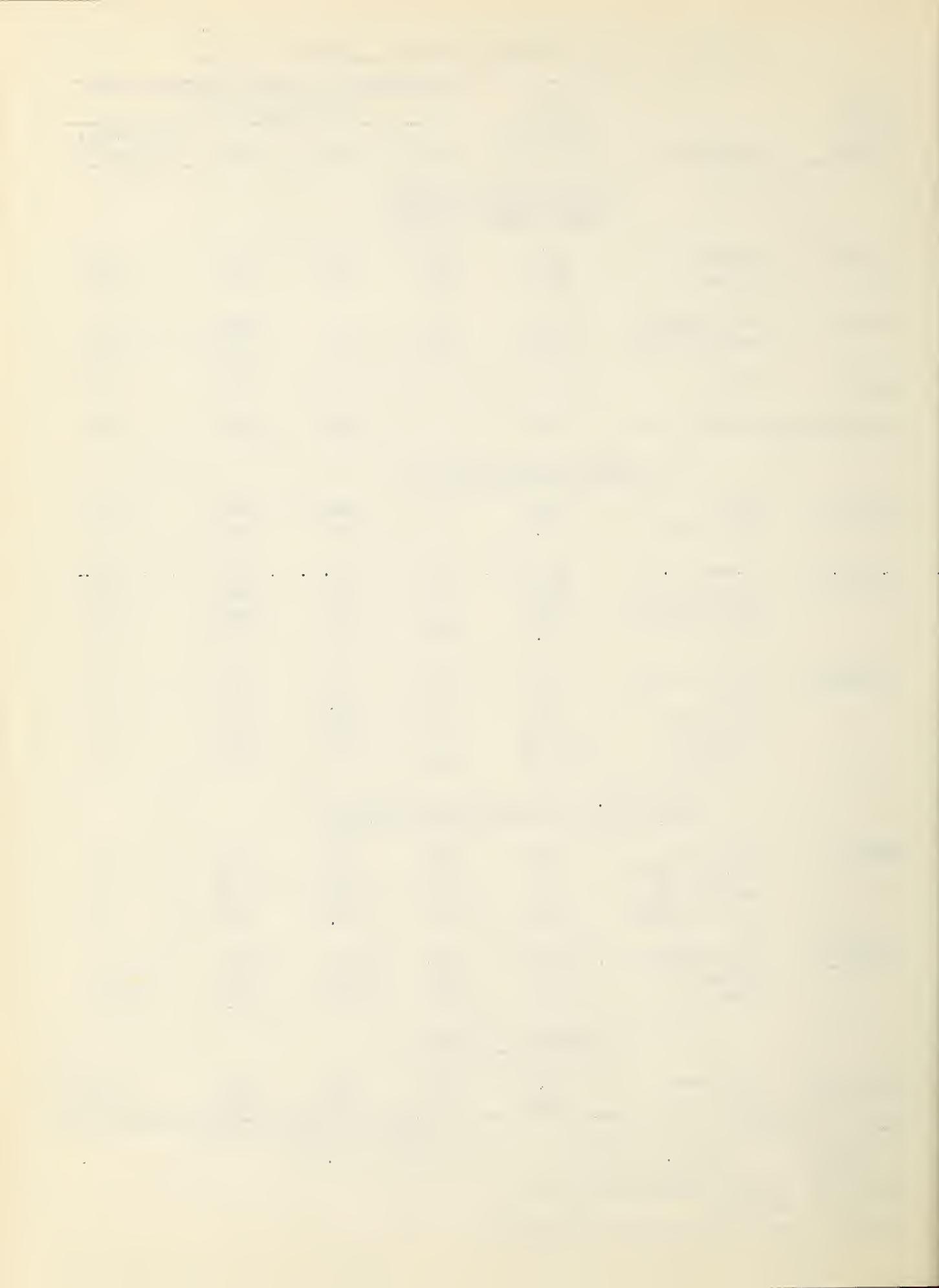
<sup>a</sup>Storage space reserved for flood control

<sup>b</sup>By ditch to Rogue River side from Klamath Drainage.

<sup>c</sup>Based on gage zero elevation of 4135.0.

<sup>d</sup>1943 and 1952 excepted

<sup>e</sup>1946 excepted



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Oregon stream basins presents the water content of the snow about February 1, 1955, as percent of the same date in 1954 and 1953 and average of record:

DRAINAGE	No. of Courses Averaged	Yrs. of Record	February 1, 1955-Water Content as percent of:		
			1954	1953	Avg.
			Upper Columbia Drainage (Lower Snake in Oregon)		
Owyhee River	5 - 6	5 - 14	88	73	66
Malheur River	2 - 3	16 - 23	57	67	76
Burnt River	3	15 - 20	63	55	67
Powder River	5	14 - 16	58	54	65
Pine Creek	1	17	55	42	59
Imnaha River	2	13 - 24	46	42	54
Grande Ronde River	8	13 - 24	59	64	68
Wallowa River	2	13 - 24	46	42	54
Catherine Creek	1	17	64	79	74
Main Grande Ronde	5	14 - 26	66	81	75
<u>Lower Columbia Drainage</u>					
Walla Walla River	1	23	62	84	77
Umatilla River	5	15 - 26	80	98	92
Willow Creek	1	25	65	54	75
John Day River	8 - 11	14 - 25	58	59	66
North Fork	5	14 - 25	57	56	66
Middle Fork	3	18 - 20	60	64	70
Main Branch	1 - 3	17 - 20	99	90	73
South Fork	1	18	--	72	72
Crooked River	3	17 - 25	50	62	65
Deschutes River	6	10 - 22	55	63	81
Hood River	4	7 - 17	54	86	70
Willamette Valley	10	11 - 24	60	84	86
Sandy River	2	17	58	79	83
Clackamas River	1	17	48	97	77
Santiam Rivers	3	14 - 17	56	79	78
McKenzie River	3	11 - 17	61	69	81
Middle Fork	2	16 - 24	64	95	97
Coast Fork	1	16	71	115	118
Mary's River	1	12	80	1150	146
<u>Oregon and California Coast Drainage</u>					
Umpqua River	3	15 - 25	60	75	91
Rogue River	11 - 13	10 - 21	56	63	88
Upper Rogue	5 - 6	10 - 20	63	66	92
Bear-Little Butte Creek	4 - 5	18 - 21	46	54	77
Applegate River	2	12 - 18	50	59	88
Illinois River	2	16	50	64	94
Klamath Lake Basin	14 - 19	10 - 28	60	63	90
Williamson River	7 - 11	10 - 28	56	56	77
Sprague River	3 - 7	10 - 28	52	72	80
Gerber-Clear Lake Basin	2 - 4	5 - 25	74	72	86
<u>Interior Drainage</u>					
Goose Lake Basin	2 - 4	10 - 25	68	73	86
Warner Lake Basin	1	16	76	75	91
Silver Lake Basin	1	14	42	40	63
Chewaucan River	1	25	59	68	92
Harnet Basin	2 - 5	16 - 22	72	81	72



9

OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Date of Elev. Survey	SNOW COVER MEASUREMENTS					Years 1954 1953 Avg. Record	
			1955		Past Record				
			Snow Depth (In.)	Water Content (In.)	Water Content (In.) of	1954	1953		

U P P E R C O L U M B I A D R A I N A G E  
LOWER SNAKE IN OREGON

OWYHEE RIVER

Rodeo Flat	15H6	6800	2/1	25	6.1 <sup>a</sup>	4.6	6.6	7.5	5
Big Bend	15H4	6700	2/2	18	3.4 <sup>a</sup>	5.2	7.0	8.2	6
Fry Canyon	15H7	6700	2/1	25	5.1 <sup>a</sup>	4.5	6.5	7.3	5
Gold Creek	15H5	6600	2/2	17	2.3 <sup>a</sup>	3.2	5.0	5.4	6
Silver City	16F3	6400	1/29	29	7.8	11.1	- -	10.3	7
So. Mtn. No. 2	16G1	6340	2/1	27	6.6	7.0	6.9	8.8	14

MALHEUR RIVER

Blue Mtn. Spgs.	18E16	5900	2/1	30	7.0	14.2	13.5	10.2	23
Rock Spring	18F1	5100	1/25	17	3.6	5.4	5.5	4.7	19
Stinking Water	18F4	4800	1/31	17	3.9	- -	0.9 <sup>b</sup>	3.4	16

BURNT RIVER

Dooley Mountain	17E1	5430	1/31	19	4.6	5.1	8.8	6.6	16
*Gold Center	18E8	5340	1/27	23	5.4	11.6	11.7	8.8	15
Tipton	18E9	5100	1/31	23	5.7	7.4	8.8	7.5	18
Blue Mtn. Summit	18E13	5098	1/31	18	3.8	7.1	6.4	6.3	20

POWDER RIVER

Anthony Lake	18E1	7125	1/28	40	11.8	20.6	19.2	19.2	14
Goodrich Lake	18E6	6775	1/31	37	10.5	27.4	29.4	28.0	6
Bourne'	18E5	5800	1/28	29	7.8	13.5	14.3	10.4	15
Dooley Mountain	17E1	5430	1/31	19	4.6	5.1	8.8	6.6	16
Eilertson Meadows	18E3	5400	1/30	23	4.8	8.5	9.9	8.3	15
*Gold Center	18E8	5340	1/27	23	5.4	11.6	11.7	8.8	15

PINE CREEK

Schneider Meadows	17D8	5400	1/29	43	12.4	22.4	29.7	20.9	17
-------------------	------	------	------	----	------	------	------	------	----

IMNAHA RIVER

*Aneroid Lake No. 1	17D1	7480	1/29	46	12.8	28.5	30.6	21.9	24
*Aneroid Lake No. 2	17D2	7000	1/29	34	9.8	20.5	23.5	19.6	13

\*Not located directly on this drainage area.

<sup>b</sup>Partly Estimated.

<sup>a</sup>Telegraphic.



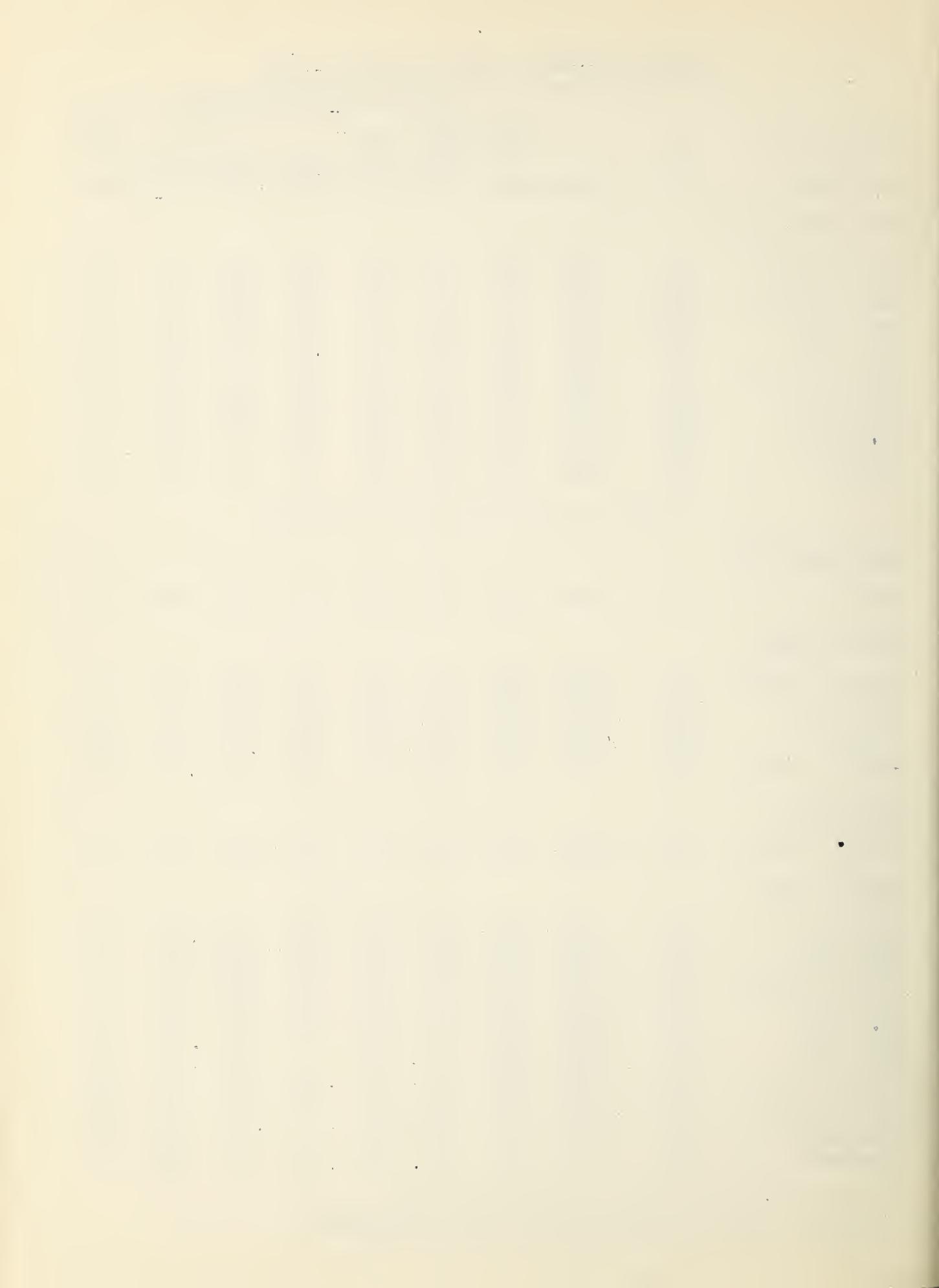
## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

10

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							Years 1954 1953 Avg. Record	
			Date of Survey	1955		Past Record					
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)		
<u>GRANDE RONDE RIVER</u>											
Aneroid Lake No. 1	17D1	7480	1/29	46	12.8	28.5	30.6	21.9	24		
Anthony Lake	18E1	7125	1/28	40	11.8	20.6	19.2	19.2	14		
Aneroid Lake No. 2	17D2	7000	1/29	34	9.8	20.5	23.5	19.6	13		
Camp Carson	18D11	5970	1/29	19	c	9.5	5.8	7.4	12		
Moss Spring	17D6	5850	1/31	42	11.6	18.2	14.7	15.6	17		
Beaver Reservoir	18D9	5340	1/28	21	5.2	9.4	5.8	8.4	16		
Tollgate	18D3	5070	1/31	48	13.6	21.8	16.1	17.6	23		
*Lucky Strike	18D6	5050	1/28	25	6.1	8.9	10.5	8.6	15		
County Line	18D8	4800	1/31	18	4.4	5.4	2.8	4.7	3		
Schoolmarm	18D7	4775	1/31	18	4.5	5.1	1.3	3.0	7		
Meacham	18D5	4300	1/31	31	8.2	7.0	4.0	6.3	26		
<u>LOWER COLUMBIA DRAINAGE</u>											
<u>WALLA WALLA RIVER</u>											
Tollgate	18D3	5070	1/31	48	13.6	21.8	16.1	17.6	23		
<u>UMATILLA RIVER</u>											
Arbuckle Mountain	19D2	5400	1/24	24	6.0	9.2	11.2	8.0	25		
Tollgate	18D3	5070	1/31	48	13.6	21.8	16.1	17.6	23		
Lucky Strike	18D6	5050	1/28	25	6.1	8.9	10.5	8.6	15		
Meacham	18D5	4300	1/31	31	8.2	7.0	4.0	6.3	26		
Emigrant Springs	18D4	3925	1/31	30	8.5	5.8	1.5	5.8	26		
<u>WILLOW CREEK</u>											
Arbuckle Mountain	19D2	5400	1/24	24	6.0	9.2	11.2	8.0	25		
<u>JOHN DAY RIVER</u>											
*Anthony Lake	18E1	7125	1/28	40	11.8	20.6	19.2	19.2	14		
Olive Lake	18E7	6000	1/28	33	8.5	15.7	14.0	11.8	19		
Blue Mtn. Springs	18E16	5900	2/1	30	7.0	14.2	13.5	10.2	23		
Arbuckle Mountain	19D2	5400	1/24	24	6.0	9.2	11.2	8.0	25		
Gold Center	18E8	5340	1/27	23	5.4	11.6	11.7	8.8	15		
*Izee Summit	19E9	5293	1/28	22	4.5	--	6.2	6.2	18		
Starr Ridge	19E7	5156	1/31	17	3.0	--	4.0	4.4	18		
Tipton	18E9	5100	1/31	23	5.7	7.4	8.8	7.5	18		
Blue Mtn. Summit	18E13	5098	1/31	18	3.8	7.1	6.4	6.3	20		
*Lucky Strike	18D6	5050	1/28	25	6.1	8.9	10.5	8.6	15		
Beech Creek Summit	19E2	4800	2/1	17	3.8	--	5.0	4.4	17		
Schoolmarm	18D7	4775	1/31	18	4.5	5.1	1.3	3.0	7		

\*Not located directly on this drainage area.

Water content not measured due to loss of equipment.



## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							
			1955			Past Record				
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content 1954	Water Content 1953	Years Ave.	Years Record	
<u>CROOKED RIVER</u>										
Derr	19E3	5670	1/31	21	4.7	9.7	9.3	7.0	17	
Ochoco Meadows	20E2	5200	2/2	22	4.4	7.9	8.4	7.4	25	
Mark's Creek	20E1	4540	1/31	13	2.8	6.0	1.4	3.9	17	
<u>DESCHUTES RIVER</u>										
New Dutchman Flat	21F2	6400	2/2	68	23.8	51.2	39.1	41.0	6	
Paulina Lake	21F13	6330	2/1	32	9.6	No previous record				
Windigo Pass	22F15	5800	1/29	62	21.1	40.7	38.6	41.0	4	
Charlton Lake	21F7	5750	1/27	52	16.4	26.3	--	15.0	7	
Three Creeks Mdws.	21E13	5600	2/3	28	9.2	19.0	17.9	12.7	22	
Willamette Pass	22F14	5600	1/29	61	20.8	38.7	28.3	32.3	5	
Irish-Taylor	21F6	5500	1/28	62	20.1	33.9	26.2	35.1	3	
*Waldo Lake	22F2	5500	1/27	51	16.6	26.6	21.0	16.9	8	
Tangent	21F3	5400	2/2	32	10.5	25.3	23.3	27.0	3	
Fire Road	21F14	5050	2/1	16	4.8	No previous record				
Cascade Summit	22F3	4880	2/1	57	16.9	30.3	21.7	21.3	24	
New Crescent Lake	21F10	4800	1/31	32	9.5	15.6	13.8	14.7	2	
*Chemult	21F11	4760	1/31	24	5.7	12.5	15.4	9.0	18	
Crescent Lake	21F9	4760	1/31	32	10.0	15.0	13.6	9.4	17	
Hogg Pass	21E6	4755	2/1	68	22.1	39.4	31.8	28.4	17	
Black Pine Spg.	21E11	4600	2/3	11	2.7	5.8	4.7	7.1	3	
Caldwell Ranch	21F8	4400	1/28	23	7.2	13.4	12.2	7.4	10	
Hungry Flat	21E4	4400	2/2	15	4.4	10.2	7.2	9.8	3	
Paulina Prairie	21F15	4285	2/1	7	3.0	No previous record				
Clear Lake	21D12	3500	1/28	19	5.2	12.7	--	10.8	4	
<u>HOOD RIVER</u>										
Tilly Jane	21D7	6000	1/23	63	21.3	41.9	25.3	36.7	7	
Red Hill	21D4	4400	Measurement Delayed		43.8	20.4	36.9	6		
Greenpoint Res.	21D1	3400	1/28	27	8.8	20.4	5.3	17.2	7	
<u>WILLAMETTE VALLEY STREAMS</u>										
<u>SANDY RIVER<sup>1</sup></u>										
Phlox Point	21D8	5600	1/31	82	32.7	53.8	43.5	39.2	17	
Still Creek	21D9	3700	1/31	36	13.5	25.3	15.1	16.2	17	
*Clear Lake	21D12	3500	1/28	19	5.2	12.7	--	10.8	4	

\*Not located directly on this drainage area.

<sup>1</sup>Not strictly a part of the Willamette Drainage; these surveys are indicative of west slope conditions.

<sup>a</sup>Telegraphic



## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS				Past Record		
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.) 1954	1953	Years Avg. Record	

## WILLAMETTE VALLEY STREAMS (cont'd)

## CLACKAMAS RIVER

*Clear Lake	21D12	3500	1/28	19	5.2	12.7	- -	10.8	4
Peavine Ridge	21D14	3500	1/30	31	9.5	19.8	9.8	12.3	17
Big Bottom	21D15	3118	1/30	18	4.3	9.8	0.0	6.7	4
Lake Harriet	21D16	2045	1/30	8.5	2.5	8.8	0.0	5.2	4
Snow Line: Approximately		1800'							

## SANTIAM RIVERS

Hogg Pass	21E6	4755	2/1	68	22.1	39.4	31.8	28.4	17
Santiam Junction	21E5	3990	2/1	47	14.7	26.3	17.4	19.0	14
Marion Forks	21E4	2730	2/1	30	8.8	16.8	8.2	11.3	14
Breitenbush	21E2	2325	Not surveyed			- -	- -	- -	-
Whitewater Bridge	21E3	2175	2/1	15	4.0	8.5	T	9.2	5
Detroit (new town)	22E1	1500+	2/1	4	2.2	4.7	0.0	4.6	5
Detroit Dam	22E2	1580	2/1	0	0.0	1.0	0.0	1.7	5
Mill City	22E3	826	2/1	0	0.0	0.0	0.0	0.6	5
Snow Line: Approximately		1250'							

## MCKENZIE RIVER

McKenzie	21E7	4800	1/31	71	25.0	37.0	40.2 <sup>c</sup>	28.6	11
Hogg Pass	21E6	4755	2/1	68	22.1	39.4	31.8	28.4	17
Santiam Junction	21E5	3990	2/1	47	14.7	26.3	17.4	19.0	14
Dead Horse Grade	21E8	3800	1/31	40	14.1	21.7	10.3	21.5	5
White Branch Slide	21E9	2800	1/31	17	5.7	8.8	0.0	9.8	6
Lost Creek Ranch	22E4	1956	1/31	15	3.5	6.7	0.0	6.5	3
McKenzie Bridge	22E5	1372	1/31	0	0.0	T	0.0	3.4	6
Vida	22E6	800	1/31	0	0.0	0.0	0.0	0.8	5
Snow Line: Approximately		1675'							

## MIDDLE FORK WILLAMETTE RIVER

*Charlton Lake	21F7	5750	1/27	52	16.4	26.3	- -	15.0	7
Willamette Pass	22F14	5600	1/29	61	20.8	38.7	28.3	32.3	5
Waldo Lake	22F2	5500	1/27	51	16.6	26.6	21.0	16.9	8
Cascade Summit	22F3	4880	2/1	57	16.9	30.3	21.7	21.3	24
Champion	22F9	4500	2/1	65	22.0	30.8	19.1	18.7	16
Salt Creek Falls	22F4	4000	2/1	38	10.8	16.8	9.6	17.5	5

\*Not located directly in this drainage area.

<sup>c</sup>Water Content includes ponded water due to extremely heavy rain over snow.



OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS						Years of Water Content (In.) of 1954 1953 Ave. Record	
			Date of Survey	1955		Past Record				
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)		

WILLAMETTE VALLEY STREAMS (Cont'd)

## MIDDLE FORK WILLAMETTE RIVER (Cont'd)

Railroad Overpass	22F5	2750	2/1	18	3.8	6.2	0.0	6.3	5
McCredie Spring	22F6	2120	2/1	6	1.0	2.0	0.0	2.8	5
Oakridge	22F7	1310	2/1	0	0.0	0.0	0.0	0.5	5
Meridian Dam	22F8	750	2/1	0	0.0	0.0	0.0	0.0	4

Snow Line: Approximately 1500'

## COAST FORK WILLAMETTE RIVER (Row River)

Champion	22F9	4500	2/1	65	22.0	30.8	19.1	18.7	16
Golden Curry Cr.	22F10	3136	2/1	25	6.0	8.0	2.0	10.3	5
Weaver Creek	22F11	2440	2/1	12	2.2	4.4	T	2.6	4
Lund Park	22F12	1740	2/1	1	T	3.3	0.0	3.4	5
Layng Creek R.S.	22F13	1200	2/1	0	0.0	0.0	0.0	0.6	6

Snow Line: Approximately 1200'

## MARY'S RIVER

Mary's Peak	23E1	3620	1/29	26	8.3	10.4	0.2	5.7	12
-------------	------	------	------	----	-----	------	-----	-----	----

OREGON AND CALIFORNIA COAST DRAINAGEUMPQUA RIVER

Windigo Pass	22F15	5800	1/30	62	21.1	40.7	38.6	41.0	4
Diamond Lake	22F18	5315	1/31	42	12.2	25.6	22.3	15.2	25
Whaleback	22G1	5140	1/28	57	19.1	33.1	29.3	24.7	15
Champion	22F9	4500	2/1	65	22.0	30.8	19.1	18.7	16
North Umpqua	22F16	4215	2/2	38	10.2 <sup>a</sup>	16.3 <sup>a</sup>	13.1	8.8	7
Trap Creek	22F17	3800	Not surveyed			--	--	10.3	5

ROGUE RIVER

Wagner Butte	22G18	6900	1/28	28	7.9	19.4	16.9	11.5	18
Seven Lakes No. 1	22G10	6800	1/31	86	29.8	51.0	44.3	26.5	10
Big Red Mtn.	22G21	6500	Measurement delayed			29.6	30.1	19.9	17
Little Red Mtn.	22G22	6500	Measurement delayed			23.9	28.4	14.1	16
*Park Headquarters	22G5	6450	1/31	79	27.0	43.5	48.4	40.0	9
Scragg Mountain	22H1	6200	Measurement delayed			30.4	26.2	19.9	12
Seven Lakes No. 2	22G11	6200	1/31	68	22.7	33.6	35.4	21.6	11

\*Not located directly on this drainage area.

<sup>a</sup>Telegraphic.



## OREGON SNOW SURVEYS - ABOUT FEBRUARY 1, 1955

DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS							
			1955			Past Record			Years 1954	1953
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)	Water Content (In.)		
<u>ROGUE RIVER (Cont'd)</u>										
*Annie Spring	22G6	6018	1/31	64	21.0	37.5	40.2	28.7	20	
*Fourmile Lake	22G12	6000	1/27	50	9.4	26.4	23.8	25.1	2	
Grayback Peak	23G3	6000	1/29	47	16.6	29.4	24.4	16.2	16	
Billie Cr. Divide	22G13	5300	1/27	49	12.1	21.3	--	15.0	21	
Whaleback	22G1	5140	1/28	57	19.1	33.1	29.3	24.7	15	
Hobart Lake	22G17	5010	1/29	12	2.4	11.5	4.4	6.7	7	
*Hyatt Prairie Res.	22G16	4900	1/26	20	4.7	11.4	10.4	7.3	20	
Fish Lake	22G14	4865	1/28	28	8.9	14.6	9.2	8.8	21	
Siskiyou Summit	22G20	4630	2/1	14	4.4	16.7	11.3	6.6	18	
Althouse	23G4	4400	1/31	11	3.1	10.1	6.2	4.7	16	
Page Mountain	23G5	4045	1/31	16	4.4	No previous record.				
Oregon Caves	23G6	4000	1/29	12	2.4	No previous record.				
Silver Burn	22G2	3720	2/1	36	9.3	17.5	13.7	9.3	17	
South Fork Canal	22G9	3500	2/1	15	3.3	6.8	T	3.2	17	
<u>KLAMATH LAKE BASIN</u>										
Seven Lakes No. 1	23G10	6800	1/31	86	29.8	51.0	44.3	26.5	10	
Park Headquarters	22G5	6450	1/31	79	27.0	43.5	48.4	40.0	9	
Seven Lakes No. 2	22G11	6200	1/31	68	22.7	33.6	35.4	21.6	11	
Annie Spring	22G6	6018	1/31	64	21.0	37.5	40.2	28.7	20	
Fourmile Lake	22G12	6000	1/27	50	9.4	26.4	23.8	25.1	2	
Strawberry	20G9	5600	2/3	20	4.1	--	8.1 <sup>a</sup>	6.1	10	
*Quartz Mtn. (COPCO)	9	5504	2/1	16	5.0	--	4.0	5.4	23	
Sun Mountain	21G2	5350	1/28	40	11.5	22.8	26.2	18.5	17	
*Quartz Mountain	20G6	5320	2/1	22	5.0	8.5	7.4	5.4	25	
Billie Cr. Divide	22G13	5300	1/27	49	12.1	21.3	--	15.0	21	
Crowder Flat	20H2	5200	Not surveyed		--	--	3.3	2.8	13	
Taylor Butte	21G3	5100	1/30	15	3.4	7.7	--	3.7	15	
Lake of the Woods	22G15	4960	1/31	30	8.6	13.4	12.0	7.8	18	
Hyatt Prairie Res.	22G16	4900	1/26	20	4.7	11.4	10.4	7.3	20	
Gerber	21G4	4850	1/31	12	3.2	2.6	0.0	3.2	5	
Bly 101 Ranch (COPCO)	10	4800	1/31	8.0	1.5	1.8	0.0	2.0	28	
Chemult	21F11	4760	1/31	24	5.7	12.5	15.4	9.0	18	
Yamsey (COPCO)	12	4600	Not surveyed		--	--	3.6	2.5	23	
Kirk (COPCO)	6	4533	1/31	22	7.0	4.5	5.2	5.4	28	
Beatty (COPCO)	1	4300	1/31	3.0	0.6	1.0	0.0	0.7	27	
Crystal (COPCO)	4	4200	1/31	28	7.4	9.5	10.8	7.0	25	
Harriman Lodge (COPCO)	8	4200	1/31	17	5.5 <sup>a</sup>	5.8	4.0	3.9	28	
Chiloquin (COPCO)	3	4187	1/31	7	1.0 <sup>a</sup>	2.9	T	2.3	25	
Fort Klamath (COPCO)	5	4150	1/31	14	3.8	5.9	2.8	4.0	28	

\*Not located directly on this drainage area.

(COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

<sup>a</sup>Telegraphic.



DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS									
			1955			Past Record						
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Years 1954	1953	Avg.	Water Content (In.)	Record		
<u>I N T E R I O R D R A I N A G E</u>												
<u>GOOSE LAKE BASIN</u>												
Camas Creek	20G8	5720	1/31	26	7.1	9.4	9.5	7.8	16			
Strawberry	20G9	5600				--	8.1 <sup>a</sup>	6.1	10			
Quartz Mtn. (COPCO)	9	5504	2/1	16	5.0	--	4.0	5.4	23			
Quartz Mountain	20G6	5320	2/1	22	5.0	8.5	7.4	5.4	25			
<u>WARNER LAKE BASIN</u>												
*Camas Creek	20G8	5720	1/31	26	7.1	9.4	9.5	7.8	16			
<u>CHEWAUCAN RIVER</u>												
*Quartz Mountain	20G6	5320	2/1	22	5.0	8.5	7.4	5.4	25			
<u>SILVER LAKE BASIN</u>												
Silver Creek	21F12	4900	1/28	12	2.0	4.7	5.0	3.2	14			
<u>HARNEY BASIN</u>												
Izee Summit	19E9	5293	1/28	22	4.5	--	6.2	6.2	18			
Idlewild Camp	18F3	5200	1/26	16	3.5	4.5	6.2	4.2	22			
Starr Ridge	19E7	5156	1/31	17	3.0	--	4.0	4.4	18			
Rock Spring	18F1	5100	1/25	17	3.6	5.4	5.5	4.7	19			
Stinking Water	18F4	4800	1/31	17	3.9	--	0.9 <sup>b</sup>	3.4	16			
<u>ADDENDUM</u>												
<u>DESCHUTES RIVER</u>												
Bobby Lake	21F16	5450	2/3	61	18.9	No previous record.						
<u>UMPQUA AND ROGUE RIVER</u>												
Goolaway Mtn.	23G1	3780	2/2	23	6.0	--	--	4.3	10			
Goolaway Gap	23G2	3050	2/2	10	2.0	--	--	1.8	7			

\*Not located directly on this drainage.

(COPCO) - Water content determined by melting a measured sample (The California Oregon Power Co.'s Station).

<sup>a</sup>Telegraphic

<sup>b</sup>Partly estimated



DRAINAGE BASIN and SNOW COURSE	No. or State	Elev.	SNOW COVER MEASUREMENTS					Years 1954 1953 Avg. Record	
			1955		Past Record				
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	Years 1954 1953 Avg. Record		

J A N U A R Y 1, 1955

DESCHUTES RIVER

Bobby Lake 21F16 5450 1/6 57 8.6 No previous record

J A N U A R Y 15, 1955

MALHEUR RIVER

Stinking Water 18F4 4800 1/18 19 3.8 No previous record

DESCHUTES RIVER

New Dutchman Flat	21F2	6400	1/12	59	18.3	--	--	48.0	1
Cascade Summit	22F3	4880	1/15	50	13.0	19.7	18.3	21.6	4
Hogg Pass	21E6	4755	1/16	70	18.6	17.0	27.4	26.9	4

WILLAMETTE VALLEY STREAMS

SANTIAM RIVERS

Hogg Pass	21E6	4755	1/16	70	18.6	17.0	27.4	26.9	4
Santiam Junction	21E5	3990	1/16	53	13.6	16.5	15.0	18.0	4
Marion Forks	21E4	2730	1/16	39	7.6	6.8	7.2	8.3	4
Whitewater Bridge	21E3	2175	1/16	24	4.2	3.6	0.0	6.8	6
Detroit (new town)	22E1	1500 <sup>a</sup>	1/16	10	1.8	0.5 <sup>b</sup>	0.0	3.4	6
Detroit Dam	22E2	1580	1/16	6	2.0	0.0	0.0	2.6	5
Mill City	22E3	826	1/16	0	0.0	0.0	0.0	0.7	4

Snow Line: about 1100'

MIDDLE FORK WILLAMETTE RIVER

Cascade Summit	22F3	4880	1/15	50	13.0	19.7	18.3	21.6	4
Champion	22F9	4500	1/14	48	14.0	11.6	19.5	20.2	5
Salt Creek Falls	22F4	4000	1/15	34	8.6	12.2	10.0	14.5	6
Railroad Overpass	22F5	2750	1/15	12	2.0	1.0	0.0	3.7	6
McCredie Spring	22F6	2121	1/15	6	1.0	0.5	0.0	1.8	6
Oakridge	22F7	1310	1/15	0	0.0	0.0	0.0	0.6	5
Meridian Dam	22F8	750	1/15	0	0.0	0.0	0.0	0.0	3

Snow Line: About 1500'

COAST FORK WILLAMETTE RIVER

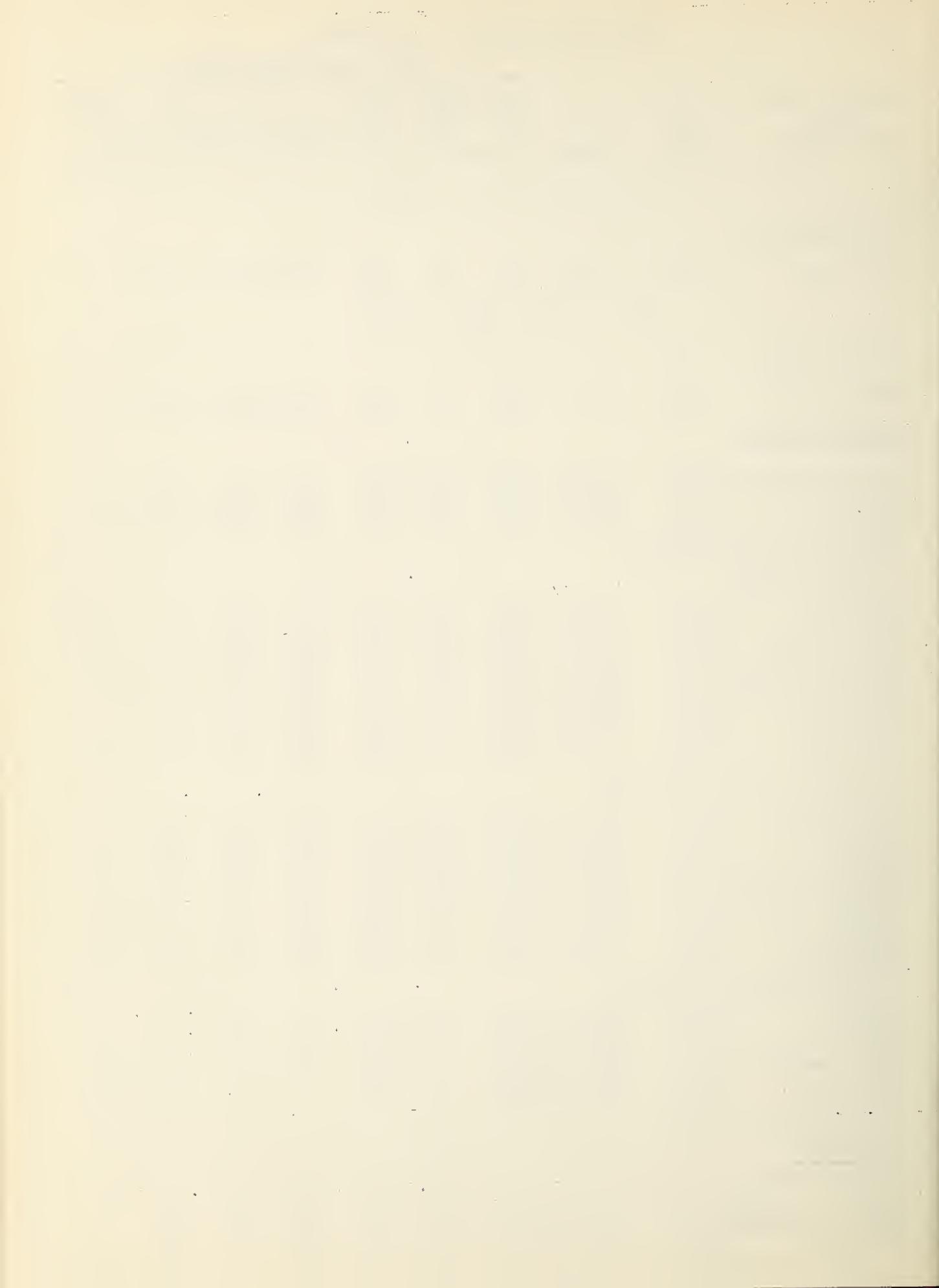
Champion	22F9	4500	1/14	48	14.0	11.6	19.5	20.2	5
Golden Curry Creek	22F10	3136	1/14	17	3.8	2.0	--	6.0	3
Weaver Creek	22F11	2440	1/14	5	2.0	1.0	--	2.0	3
Lund Park	22F12	1740	1/14	0	0.0	--	--	3.9	3
Laying Creek R.S.	22F13	1200	1/14	0	0.0	--	--	1.5	3

Snow Line: About 1850'

ROGUE RIVER

Siskiyou Summit	22G20	4630	1/16	19	3.3	4.2	14.0	7.9	6
<u>KLAMATH LAKE BASIN</u>									
Lake of the Woods	22G15	4960	1/15	30	9.3	6.9	12.2	10.8	3
Gerber	21G4	4850	1/15	14	2.6	1.0	--	2.5	4

<sup>a</sup>Partly estimated



<u>BASIN, RIVER and STATION</u>	Streamflow in Thousands of acre-feet			
	<u>Oct. 1954 - Jan. 1955</u>		<u>Jan. 1955</u>	
	Total	As percent of 1938-52 Average	Total	As percent of 1938-52 average
<u>UPPER COLUMBIA DRAINAGE (Lower Snake in Oregon)</u>				
Owyhee Res. net inflow	48.4	58	14.1	48
<u>LOWER COLUMBIA DRAINAGE</u>				
Umatilla R. nr. Umatilla	35.4	37	8.7	25
John Day R. at Service Cr.	89.9	41	25.7	32
Deschutes R. at Moody	1223.3	95	322.8	87
Hood R. and conduit nr. Hood R.	206.2	72	60.9	75
Willamette R. at Salem	5101.7	66	2139.9	82
Willamette R. at Albany	2668.3	58	1260.5	78
M.F. Willamette R. below North Fk.	425.1	55	154.1	65
<u>OREGON AND CALIFORNIA COAST DRAINAGE</u>				
Umpqua R. nr. Elkton	1129.2	47	612.2	68
Rogue R. at Raygold	416.4	56	126.7	48
Upper Klamath Lake net inflow	485.9	116	119.9	103

<sup>a</sup>Preliminary data supplied by: U. S. Geological Survey, Current Records Center, Portland, Oregon; The California Oregon Power Co., Medford, Oregon; and North and South Boards of Control, Owyhee Project, Nyssa, Oregon.



OREGON PRECIPITATION<sup>a</sup>

DRAINAGE DIVISIONS	FALL			
	Sept.-Oct.-Nov. 1954		Dec.-Jan. 1954-'55	
	Observed	Departure <sup>b</sup>	Observed	Departure <sup>b</sup>
Southeastern	0.96	-1.72	2.07	-0.65
Blue Mountains	2.38	-2.81	3.12	-1.87
Wallowa Mountains	3.01	-2.75	2.69	-1.81
Lower Columbia	3.14	-2.21	2.38	-2.49
Upper Deschutes	1.12	-2.79	1.31	-2.51
Willamette Valley	10.91	-6.72	2.05	-1.54
Southwestern	3.16	-4.68	5.01	-3.32
South-Central	1.49	-2.18	11.49	-4.63

<u>Southeastern</u>	- Owyhee and lower Malheur drainages.
<u>Blue Mountains</u>	- Upper valleys of the Umatilla, John Day and Malheur, and the Powder, Burnt and Silvies drainages.
<u>Wallowa Mountains</u>	- Imnaha, Wallowa and Catherine drainages.
<u>Lower Columbia</u>	- Lower valleys of the Walla Walla, Umatilla, John Day and Deschutes, and the Hood and Sandy drainages.
<u>Upper Deschutes</u>	- Upper Deschutes and Crooked drainages.
<u>Willamette Valley</u>	- All Willamette drainages.
<u>Southwestern</u>	- Umpqua, Rogue and Williamson drainages.
<u>South-Central</u>	- Sprague, Lost and Interior Basin drainages.

a - Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Services of Canada and U. S. Weather Bureau.

b - Departure from 10-year (1943-52) drainage division average.

Note - Precipitation shown in inches.



The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys  
Nevada Cooperative Snow Surveys  
Oregon Agricultural Experiment Station  
Oregon State Engineer and corps of State Watermasters  
Oregon State Highway Engineers  
Soil Conservation Districts of Oregon

FEDERAL

Department of Agriculture  
Cooperative Extension Service  
Forest Service  
Soil Conservation Service  
Department of Commerce  
Weather Bureau  
Department of the Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Fish and Wildlife Service  
Geological Survey  
Indian Service  
National Park Service  
Department of National Defense  
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company  
Pacific Power and Light Company  
Portland General Electric Company  
The California Oregon Power Company

MUNICIPALITIES

City of Baker  
City of La Grande  
City of The Dalles  
City of Walla Walla

IRRIGATION DISTRICTS

Associated Ditch Companies  
Central Oregon Irrigation District  
Deschutes County Municipal Improvement District  
East Fork Irrigation District  
Grants Pass Irrigation District  
Jordan Valley Irrigation District  
Lakeview Water Users, Incorporated  
Medford Irrigation District  
Ochoco Irrigation District  
Rogue River Irrigation District  
Talent Irrigation District  
Vale-Oregon Irrigation District  
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

Amalgamated Sugar Company  
The Crag Rats, Hood River, Oregon





